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#### ABSTRACT

A carburetor for a two stroke engine with an air passage and a separate fuel and air mixing passage in a carburetor body and the passages having an air valve and a throttle valve, respectively. A coupling connects a valve shaft of the air valve with a valve shaft of the throttle valve and has an area wherein the valves are rotatable relative to each other corresponding to a difference between an opening and closing angle of the air valve and an opening and closing angle of the throttle valve. Preferably, when the throttle valve is in an idle position, the air valve is closed and the throttle valve can be opened through at least some angle from its idle position before the air valve is moved from its closed position. Also, the air valve is preferably fully opened when the throttle valve is moved to its fully or wide open position. Thus, at idle operation of the engine, the air valve is closed to prevent a scavenging air supply from being provided to the engine to avoid an overly lean fuel and air mixture in the engine. When the engine is moved sufficiently off idle, the air valve is opened to supply the scavenging air supply to the engine which facilitates removal of exhaust gases and reduces the escape of a fresh fuel and air mixture through the engine exhaust ports.